

August 25, 2015

Federal Communications Commission 445 12<sup>th</sup> St. SW., Room TW-A325 Washington, D.C. 20554

WC Docket Nos. 11-42,09-197,10-90; FCC 15-71 Lifeline and Link Up Reform and Modernization, Telecommunications Carriers Eligible for Universal Service Support, Connect America Fund

The National Housing Conference (NHC) appreciates the opportunity to share our perspective and make recommendations on the proposed Lifeline reforms. The Federal Communications Commission (FCC), through the Lifeline program, can promote and increase broadband adoption across the country. NHC has a number of comments to share on the issue of broadband adoption in the home for low-income households.

# I. About the National Housing Conference

The National Housing Conference represents a diverse membership of housing stakeholders including tenant advocates, mortgage bankers, non-profit and for-profit home builders, property managers, policy practitioners, real estate professionals, equity investors, and more, all of whom share a commitment to safe, decent and affordable housing for all in America. We are the nation's oldest housing advocacy organization, dedicated to the affordable housing mission since our founding in 1931. As a nonpartisan, 501(c) 3 nonprofit, we are a research and education resource working to advance housing policy at all levels of government in order to improve housing outcomes for all in this country.

To help achieve affordable broadband connectivity for all, the National Housing Conference (NHC) convened a Connectivity Working Group to recommend policy changes. The group draws from affordable housing developers, public agencies, policy experts, capital providers, national intermediaries, and more, all committed to the shared mission of closing the digital divide for low-income people.

# II. Overall comments on Lifeline

# A. Expansion to broadband

NHC supports the expansion of the Lifeline subsidy to include home broadband for low-income consumers. NHC's research on the digital divide (enclosed) shows that low-income renters especially are stuck on the wrong side of the digital divide. Thirty-seven percent of extremely low-income renters (with incomes below 30 percent of area median income) do not have a computer at home, and 54 percent do not have home Internet access. Among renters with incomes between 31 and 50 percent of area median income (AMI), 29 percent have no home computer and 46 percent have no home Internet access. The

likelihood of having access increases as households move up the income scale. These figures compare to a national average of 84 percent of U.S. households with a computer at home and 74 percent with home access to the Internet, based on 2013 American Community Survey data. More tools and strategies, like the Lifeline subsidy, that help low-income households access broadband will help address this gap. **The FCC should expand the Lifeline program to include broadband.** 

## B. Benefits from broadband access

We need to address this gap because for many children, home Internet access as well as having a home laptop or desktop computer is becoming a requirement to complete homework and keep up with classwork. For older adults, Internet access can provide important social connections and healthcare access. Additionally, more federal benefit programs are moving online, and for young adults, online training and education programs provide an important way to improve their earning potential.

According to a forthcoming NHC case study on broadband in affordable housing, benefits from Internet access specific to seniors—those age 65 and older—are becoming more evident. In-home Internet access can provide an important connection to family and friends through email and social media, helping seniors to avoid social isolation, a leading contributor to poor outcomes for seniors in both mental and physical health. A high-speed Internet connection, in particular, allows for video chats, which can provide a sense of closeness beyond what can be gained from email or telephone conversations. Expressions.

In-home connectivity can improve health care delivery to older adults. The use of videoconferencing with medical professionals, for example, can improve access to health services and improve health outcomes for seniors<sup>iii</sup>. A study conducted by the Department of Veterans Affairs focused on patients receiving mental health services and showed that utilizing high-speed video conferencing to conduct therapy sessions substantially reduced hospital admissions and total hospitalization days among seniors.<sup>iv</sup> These findings are promising for seniors' prospects of aging in place: if seniors are able to access necessary health information through online channels and interact more easily with health care providers, this will likely increase their ability to remain in their homes living independently as long as possible.

In-home Internet access for seniors can also enhance emotional and intellectual wellbeing. A 2009 analysis by the Phoenix Center for Advanced Legal and Economic Public Policy Studies determined that Internet use by senior citizens was associated with a 20-percent reduction in depression severity. Researchers from the Semel Institute for Neuroscience and Human Behavior at the University of California, Los Angeles found that spending time on the Internet improved cognitive function by stimulating areas of the brain that control decision-making and complex reasoning in middle-aged and older adults with little Internet experience."

NHC's membership and connectivity working group are primarily stakeholders in the affordable housing space, as developers and advocates, state and local governments, and service providers. Partnerships with housing providers are an important mechanism for increasing home Internet adoption, and putting

broadband in affordable housing can even provide benefit to the property itself through more efficient property maintenance.

# C. Possible models for Lifeline broadband subsidy

As the FCC receives comments and considers how to structure the program going forward, NHC encourages the Commission to **pursue changes that improve the program's flexibility**. For example, if the subsidy level of \$9.25 per household could be aggregated at a property level, affordable housing developers could more efficiently provide broadband to every unit. With operating support from Lifeline, affordable housing developers could pursue other funding sources for the up-front capital and to provide computing equipment and digital literacy services.

Recent efforts in Austin illustrate a possible approach to providing property-level broadband in affordable housing. Through a partnership with Google Fiber, the Housing Authority of the City of Austin (HACA) will receive free installation of broadband in its public housing units. Because of that initial subsidy, HACA pursued partnerships with the community college and other organizations to provide residents access to discounted computing equipment and digital literacy classes. (The enclosed case study provides details.)

A second example from California shows how a flexible, aggregated subsidy could sustain property-level broadband. Eden Housing financed Internet service for every unit in its Cottonwood Place development, providing affordable housing for seniors. However, Eden Housing struggles with the rapid pace at which technology—both equipment and software—becomes obsolete and needs to be upgraded, making it difficult for low-income seniors to keep current with devices and software. An aggregated Lifeline subsidy could help by providing support for the actual Internet service potentially freeing up other property funds for equipment. **The more flexibly the subsidy is designed, the more successful it will be** in terms of leveraging other funding sources to provide robust programming to low-income households to include equipment and digital literacy. Flexibility will also support solutions designed to leverage local resources and adapt to circumstances in for local communities.

# D. NHC's policy recommendations for increasing broadband in affordable housing

NHC's work on broadband is focused on providing Internet access in affordable housing. Through collaboration with our connectivity working group, NHC drafted a number of policy recommendations. Most of our recommendations focus on HUD and affordable housing, but we have included three of our policy recommendations that are relevant for this discussion of Lifeline reform.

**Support broadband in affordable housing through FCC actions**. The Federal Communications Commission (FCC) is uniquely positioned to reduce costs of broadband service for low-income households, encourage public-private partnerships to serve low-income communities, and make broadband part of coordinated neighborhood transformation strategies. In future mergers, the FCC should require companies to:

- a. Work with HUD, state and local housing agencies, and affordable housing stakeholders to implement broadband access in publicly-subsidized housing developments including public housing, Section 8, Low Income Housing Tax Credit, and others.
- Contribute to independent funds to support broadband adoption at home and implement strategies to improve and expand Comcast's Internet Essential program to all low-income families and individuals.
- c. Upgrade infrastructure in underserved areas and extend into unserved communities to improve broadband deployment, with special attention to low-income neighborhoods and multifamily buildings serving households below median income.
- d. Ensure that provider-supported connectivity programs reach all people in need, especially seniors and people with disabilities who may not be captured by school-related criteria for eligibility.

Provide federal funds to support broadband connectivity in affordable housing. Existing resources are not sufficient to accomplish all that is needed, including capital installation, ongoing operation, equipment, digital literacy training, and technical support. As part of annual appropriations, Congress should allocate additional funding for public and assisted housing to pay for broadband costs in property operations, as well as large-scale pilots to refine best practices for implementing broadband at a property level. Tax incentives are an alternative mechanism for defraying cost of broadband connectivity in affordable housing, if properly structured in a pay-for-performance model and not diverted from existing affordable housing programs.

Use public resources to leverage private resources. Private businesses can be part of the solution to the digital divide, through both corporate philanthropy and private investment for business purposes at the large and small scale. In-home connectivity can make property management more efficient for multifamily housing, deliver health care services efficiently, and allow telecommuting for workers. It can also bring low-income people into the economic mainstream as workers, consumers, and entrepreneurs. Scarce public resources should therefore leverage private contributions, of which there are many models, including community development financial institutions, tax credit incentives, loan pools, and in-kind contributions. Examples include Google Fiber projects in Austin and Comcast's Internet Essentials program.

# III. FCC's specific requests for comment (italics)

NHC offers some thoughts below in response to the specific questions posed by FCC in the proposal, focusing on those aspects that connect to affordable housing.

Section A. The Establishment of Minimum Service Standards

**NHC** encourages the FCC to set minimum service standards so that when low-income consumers have access to broadband, it is at a speed sufficient to make a meaningful difference in their lives. On the question of a set subsidy level of \$9.25, the FCC needs to determine what kind of access this could feasibly support. Whatever subsidy level is set through the NPRM, it should have an inflation adjustment factor, so that the passage of time does not quickly make the program obsolete. If the FCC determines

that \$9.25 will be the permanent subsidy level but that funding level is insufficient to meet minimum service standards for the program, the FCC should be very cautious about requiring low-income consumers to contribute. Some low-income consumers could potentially contribute a nominal amount to broadband service in addition to the \$9.25 subsidy, but for many others, even a \$10 commitment will be too costly to participate. The FCC may need to consider a higher level of subsidy to ensure widespread adoption of broadband.

As we noted earlier, allowing household subsidies to be aggregated within an apartment property could facilitate efficient access to broadband. Property owners could pool the ongoing monthly subsidy to cover operating costs for property-wide broadband service, allowing them to leverage other sources for up front capital, digital literacy training and households' computing equipment. NHC would also encourage the FCC to consider providing a subsidy for up front connection charges for residential Internet service. Again, a flexible structure where that subsidy could be aggregated at the property level could be incredibly helpful to ensure that all affordable housing residents at a property gain Internet access.

In response to the FCC's question on how to ensure that low income households that include school children are aware of the Lifeline program, NHC encourages partnerships with public housing authorities (PHAs) and private owners of subsidized affordable housing. PHAs, for-profit, and non-profit entities all work at the local level providing subsidized housing to low-income households and could help ensure families living in subsidized housing were aware of the Lifeline program.

Section B. Third Party Eligibility Determination

NHC encourages the FCC to consider ways to **streamline administration of the Lifeline program** going forward. Eligible telecommunications providers should not bear the burden of determining household eligibility when more efficient means are available. We understand that FCC is considering a national verifier model. Other options deserve consideration either in combination with or instead of the national verifier. The FCC could consider **allowing public housing authorities**, **operators of subsidized housing properties**, **and nonprofit community based organizations to play a greater role** in the program, including verification. These entities already verify resident income as part of qualifying tenants, so there may be opportunities to simplify the application process or coordinate with other federal benefit programs that qualify households for Lifeline, such as SNAP or Housing Choice Vouchers.

In response to the FCC's question on improving veteran access to broadband, coordinating with and using HUD-VASH voucher eligibility as a mechanism would improve outreach and access.

Lastly, NHC would encourage the FCC to focus on how to close the digital divide for low-income consumers before working on reducing program size. While we recognize the overall need for efficiency, the pressing needs of the 8.3 million low-income renters without access to home broadband indicate that the subsidy is essential to ensure widespread adoption of broadband.

Section C. Increasing Competition for Lifeline consumers

NHC encourages the FCC to consider allowing non- eligible telecommunications carriers (ETC) or allowing PHAs, operators of subsidized housing, and community based nonprofits to become ETCs through an alternative definition to act as Lifeline providers. In many communities, housing organizations are pursuing alternative ways to provide home access to low-income consumers through Wi-Fi hot spots, mesh networks, etc. They also are typically well-connected with low-income consumers and able to effectively market the program to this consumer group. Allowing housing organizations to serve as Lifeline providers would greatly benefit the program.

# **IV. Conclusion**

NHC appreciates the opportunity to comment on this notice of proposed rulemaking and commends FCC for its proactive efforts to strengthen and improve access to broadband for low-income households. Please contact Rebekah King, Policy Associate (rking@nhc.org) with any questions.

Sincerely,

**Chris Estes** 

President and CEO

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vi Lauer, George. 2009. Seniors Who Use Internet Could Reap Health Benefits, Studies show. iHealthBeat. Retrieved from <a href="http://www.ihealthbeat.org/insight/2009/seniors-who-use-internet-could-reap-health-benefits-studies-show">http://www.ihealthbeat.org/insight/2009/seniors-who-use-internet-could-reap-health-benefits-studies-show</a>.

# The Connectivity Gap: The Internet Is Still Out of Reach for Many Low-Income Renters

Having a home computer and Internet access is increasingly important for individual and family well-being and self-sufficiency. The availability of Internet access is associated with greater student achievement,¹ improved health outcomes,² and less social isolation,³ as well as with more robust economic growth.⁴ Connecting to the Internet is increasingly the way people learn, get health care information, share news, pay bills, and interact with government. Most Americans say that being online is essential for "job-related or other reasons."⁵ However, low-income individuals and families—and particularly very low-income renters—are far less likely than others to have Internet access or a computer at home. The persistent digital divide in the U.S. exacerbates economic inequality and risks leaving low-income individuals and families further behind.⁶

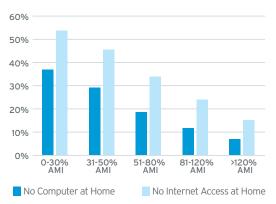
# Low-Income Renters are Much Less Likely than Other Households to Have Home Computer or Internet Access

In 2013, 84 percent of U.S. households had a computer at home and 74 percent had home access to the Internet. 7.8 But there are significant variations across income groups, and low-income renters—including many served by federal housing programs—are among the least likely to have access to technology in their homes.

Thirty-seven percent of extremely low-income renters (with incomes below 30 percent of area median income) do not have a computer at home and 54 percent do not have home Internet access (Figure 1). Among renters with incomes between 31 and 50 percent of area median income (AMI), 29 percent have no home computer and 46 percent have no home Internet access. The likelihood of having access increases as households move up the income scale.

# Very Low-Income Renters are Somewhat More Likely to Rely on a Smartphone Rather than a Laptop or Desktop Computer

While smartphones are useful for some Internet applications, a home laptop or desktop computer can be necessary for some important tasks, including accessing health information or doing schoolwork.



Source: 2013 American Community Survey 1-year PUMS file

Eleven percent of very low-income renter households (with incomes below 50 percent of AMI) rely solely on a smartphone or other handheld device for their at-home computer access, compared to nine percent of all renters (Figure 2). Higher-income renters are much more likely to have a desktop or laptop at home—70 percent of all renters compared to 55 percent of very low-income renters.

### **◆ FIGURE 1**

Share of Renters with No Computer and No Internet Access at Home by Income, 2013

# Only Half of Very Low-Income Renters **Have Home Internet Access**

Among very low-income renters with home Internet access, the most common type of access is via a cable modem. Mobile broadband access is the second most common mode of home Internet access. However, the availability and speed of different Internet connections vary substantially around the country.9

Not only is having access to home Internet important, but having sufficient speed to use online education and training programs like streaming course lectures or to maintain a video connection with a health care provider is equally as important.

# Very Low-Income Senior and Disabled Renters are Unlikely to Have Home **Computer or Internet Access**

Nearly 70 percent of very low-income senior renters do not have a computer and 74 percent do not have home Internet access. Very low-income disabled renters also lack access; more than half have no computer of any kind and about two-thirds do not have access to the Internet in their homes. A lack of access to technology can limit opportunities for seniors and disabled persons to stay connected to friends and families and precludes them from accessing Internetbased health care options.

Very low-income renters with children are more likely than other low-income renters to have both a home computer and home Internet access.

Part of the reason households with children are more connected is because of the focus on access and the integration of the Internet into education. For very lowincome seniors and disabled renters, illustrating the benefit of home Internet access has been more of a challenge. However, as federal benefit programs like Social Security move online. Internet access will become critical for older adults and disabled persons.

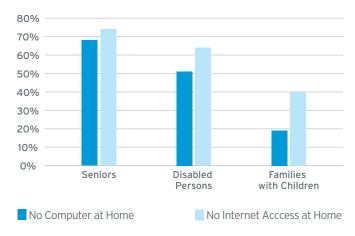
FIGURE 2 Computer and Internet Access Type

	SHARE OF HOUSEHOLDS	
	VERY LOW- INCOME RENTERS	ALL RENTERS
TYPE OF COMPUTER		
Smartphone only, no computer	11%	9%
Computer only, no smartphone	19%	16%
Both computer and smartphone	37%	53%
Neither computer nor smartphone	34%	22%
TYPE OF INTERNET ACCESS <sup>a</sup>		
Mobile broadband	20%	29%
DSL	12%	15%
Cable modem	30%	40%
Fiber optic	4%	6%
Other	4%	4%
No Internet access	50%	35%

<sup>a</sup>Numbers sum to more than 100 because households may have more than one source of home Internet access.

Source: 2013 American Community Survey 1-year PUMS file

FIGURE 3 Very Low-Income Renter with No Computer and No Internet Access at Home, 2013



Source: 2013 American Community Survey 1-year PUMS file

# **ENDOTES**

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- 7. All data in this report were tabulated from the 2013 American Community Survey 1-year public use microdata sample (PUMS) file
- 8. For this report, "computers" include desktops, laptops, notebooks, and smartphones as well as other handheld computers. Internet access includes wireless broadband, dialup, DSL, fiber optic, cable model and satellite Internet services.
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# Unlocking the Connection in Austin, Texas

By Mindy Ault

# Background

When Google Fiber selected Austin, Texas as the second US city to receive its gigabit broadband Internet service, it awarded free high-speed broadband connectivity to 100 community institutions, including the Austin Children's Shelter, United Way, the Red Cross, every public library in Austin, and the Housing Authority of the City of Austin's (HACA's) Booker T. Washington multifamily property. At Booker T. Washington, the Google Fiber plan calls for installing broadband access for residents in a community computer lab, which includes classroom space and a workforce development site.

The connection to Google Fiber's fiber-optic network led HACA executives to ask whether Google Fiber could help them make a two-year-old strategic plan a reality: While HACA properties provide basic broadband connections in their community centers, the relatively high cost of broadband subscriptions means only a small number of residents have Internet access in their homes. Could a joint effort with Google Fiber achieve HACA's goal of bringing basic broadband Internet into each and every home? Recognizing the importance of having in-home Internet access, HACA's leadership decided to establish a partnership with Google Fiber to provide free basic in-home broadband access for residents at all 18 HACA properties.

As free broadband Internet becomes available to residents at HACA properties, increasing numbers of people will be able to enjoy the kinds of social advantages that come with connectivity: low-income families with children will be better able to keep up with schoolwork and communicate with teachers; adults seeking employment will be able to apply for more jobs online; and seniors and people with disabilities will be able to communicate with healthcare providers and prevent social isolation by keeping in contact with family members and loved ones. Cost will no longer be an insurmountable obstacle for HACA residents when it comes to the benefits in-home Internet access can offer.

## **Unlocking the Connection**

In an effort to achieve its strategic goal of digital inclusion, HACA developed the Unlocking the Connection project. Launched in November 2014, Unlocking the Connection is a community-based initiative to help low-income families gain access to opportunities afforded by in-home Internet connectivity, including improved capacity for employment searches, electronic communication with health care providers and teachers via email and online forms, and access to open-source educational materials. HACA's 501(c)(3) nonprofit subsidiary, Austin Pathways, is the entity charged with seeking funding and implementing the program.

Typically, each household subscribing to Google Fiber for in-home access would be required to pay a \$300 connection fee, but Google Fiber agreed to waive that fee for all HACA residents. In addition, free basic Internet access will be provided to residents in their homes at all 18 HACA developments for 10 years. To complement this broadband access, Austin Pathways has developed an Earn A Device program that provides refurbished desktop computers for residents who complete digital literacy training. The computers come free of charge through a partnership with Austin Community College, and are loaded with free open-access educational content.

Based on Google Fiber's rollout plan and barring unforeseen complications, the first six of HACA's 18 properties, located in the southern portion of the city, should be outfitted with fiber optic networks by June 2016.

# **Financial Considerations and Partnerships**

Altogether, the first phase of the Unlocking the Connection initiative is anticipated to cost approximately \$1.4 million, including the cost of in-kind services contributed by Google Fiber. Sylvia Blanco, Executive Vice President for HACA, acknowledged preparation of some initial projections for the second and third year costs, but these are being modified based on observations and learnings about the cost of deploying the program during the pilot phase.

Funding for the initiative is provided in part by the Ford Foundation, the Open Society Foundation, and by key gifts from in-kind partners, including the following:

- Austin Community College (ACC) is providing refurbished desktop computers for every
  household in the first six HACA properties and for the foreseeable future will provide retired
  computers for all HACA units as they come online. HACA and ACC are exploring ways in which
  ACC students can provide technical support and training to residents in the future.
- **IBM** has provided in-kind strategic planning services.
- Freescale, a semiconductor manufacturer, and Rackspace, a managed cloud computing company, have contributed funds for K-12 STEM (science, technology, engineering, and mathematics) education that will enable children in public housing to gain valuable digital literacy skills.
- The University of Texas Moody College of Communication is evaluating the effectiveness of the Unlocking the Connection program through a formal evaluation.
- EveryoneOn, a nonprofit agency that works with telecom companies to ensure people in lowincome areas have Internet access at discounted prices, is providing technical assistance to Austin Pathways.

Most recently, Austin Pathways was awarded grants from the City of Austin's GTOPs (Grant for Technology Opportunities) program and from the Central Texas Summer STEM Funding Collaborative, a consortium of funders that includes the KDK Harman Foundation. These funds enable Austin Pathways

to provide a STEM initiative for children ages six through 14 and to fund a computer lab apprenticeship program to be offered to all HACA residents.

# **Current Status**

As of April 2015, the physical infrastructure—the fiber-optic cable—has been installed at the first site, Manchaca Village, and is nearly complete at Meadowbrook, the second property to implement the program. Internet modems have been installed in all the Manchaca Village units, and these are expected to go live by Fall 2015. Digital literacy training has begun at Manchaca Village as well, and of the 33 households residing there, 18 now have an Internet-ready computer in their home, pre-loaded with software from **World Possible's RACHEL project** that provides free open-access educational content.

# **Implementation**

In 2013, as part of a planning grant through the U.S. Department of Housing and Urban Development's Choice Neighborhoods Initiative, HACA conducted a household-level survey of public housing properties in East Austin with questions about technology use. The results indicated that in addition to very few residents having an email address, fewer than 30 percent of the households surveyed owned a desktop laptop, or tablet device. Of those who did, only 28 percent had Internet access in their homes. While about 80 percent of residents surveyed reported having a smartphone, they also indicated this was their only access to the Internet.

It will take time to roll out this project across all HACA properties, but at the first site—the 33-unit Manchaca Village property for families—18 residents have elected to participate in the digital literacy classes offered by HACA as a pilot program with volunteer instructors from Austin Community College. To encourage participation in these classes, residents are offered the opportunity to earn their own computers by attending a minimum of 80 percent of the classes. Adult students at Manchaca Village with technical talent, or who are adept in assisting other learners, are now earning \$200 every six weeks by working as assistant trainers in the digital literacy classes at other properties.

## **Potential Benefits**

In addition to educational, health, and social benefits, broadband Internet access is expected to provide other, peripheral benefits. According to Catherine Crago, who leads strategic initiatives for Austin Pathways, there are additional advantages to having internet access at home, some of which could yield operational cost and time savings for HACA as a whole. For example:

- Eventual use of Internet-connected thermostat controls could facilitate regulation of interior temperatures and potentially lead to energy savings for HACA.
- Preventive emergency medical service savings could result for units housing seniors or people
  with disabilities if they are equipped with Internet-based devices to alert caregivers or case
  managers when a refrigerator or cabinet door has not been opened for a set period of time,
  indicating the resident has not taken necessary medication.

• Time savings for social workers in HACA's Family Self-Sufficiency Program could be achieved with the use of a web-based smartphone app to check the status of a client's public assistance application or request income verification from Social Security.

## **Obstacles**

Austin's Unlocking the Connection program, the first initiative of its kind for a housing authority, is an example of successful collaboration among community-based organizations. However, there have been challenges to overcome along the way. One of the main obstacles in implementing the Google Fiber project was a \$10 household signup fee—separate from the \$300 installation fee—required by Google Fiber from every household connecting to the network. Because Austin Pathways and Google Fiber are both committed to making fiber-optic network access completely free for HACA residents, Google Fiber provided a grant to enable Austin Pathways to cover the \$10 registration fee for each resident.

Another challenge encountered by HACA was developing effective ways to promote the program to residents who may not see the need for owning a computer or accessing the Internet. As an alternative to staff members visiting each unit individually to share information about free in-home Internet access and digital literacy classes, HACA holds "Tech Ferias"—informational fairs about the broadband project—onsite at residential properties. The Tech Ferias are a way of introducing residents to the program in a group setting that is meant to be enjoyable as well as informational, and signing them up for broadband connectivity. At the first Tech Feria, held at the Manchaca Village property, computers were on display for residents to explore, and staff was able to advise residents about how they could earn a free device for their home just by signing up and attending digital literacy classes. In addition, HACA has utilized its monthly newsletter to communicate class schedules and dates for future Tech Ferias.

## A Collective Effort

HACA's Sylvia Blanco described the significant collaboration required by Unlocking the Connection, emphasizing that such a program must be a collective effort involving participants from local government, nonprofit, and corporate sectors. She remarked,

It takes a village. (A project like) this can't be handled by one entity; it has to be a collective effort. Make sure the mayor's office is on board (and that the) nonprofit and corporate community of your city is reached out to. It takes many hands to make this happen.

Blanco also stressed that such a program is not an overnight fix, stating that since it will likely take years to see the impact of this initiative, project sponsors and participants must be willing to maintain a long-term view in planning and implementation.

Ultimately, Austin Pathways, with significant contributions from Google and other local community partners, has created a successful model for bringing broadband Internet access to low-income households in Austin who stand to benefit from connectivity.

<sup>1</sup> Barbarotta, Linda. 2014. "Fighting isolation with technology," *LeadingAge Magazine*, July/August. Online http://www.leadingage.org/Fighting\_Isolation\_With\_Technology\_V4N4.aspx.